

BASF Aktiengesellschaft

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### **Abstract**

The invention relates to a process for the scale-up of a reactor (1) having a supply of a reaction mixture via channels (2) of a burner block (3) to a reaction chamber (4), a high temperature reaction having a short residence time taking place in the reaction chamber (4) and the reaction mixture subsequently being rapidly cooled in a quench area (5). For a throughput enlargement the internal diameter of the reactor (1) is enlarged, the transition of the reaction chamber (4) to the quench area (5) being designed in the form of a gap, which is restricted to a width in the range from 2 to 200 mm.

(Figure 1)